

obedience to old forms, was apparent in both. If the architect of a church be ignorant of the mediæval styles, then, indeed, he may deprecate criticism, but if not, and he have produced a design in which original thinking is manifest, let him boldly meet his detractors, and he will have us to applaud him as one of those pioneers in taste, who, notwithstanding all may not yet say so, we believe were never more needed.

Restoration is a different matter, and we are glad to see that much has been already done in that way, in Manchester. The town possesses a very interesting church, formerly collegiate, but now a cathedral. Although of the latest period of Gothic architecture, it has many beautiful parts, in spite of the perishable nature of the stone used in its erection, and the restorations to which it has been subjected, at least favourable periods than the present. Internally, there are some remarkably fine roofs, and much old stallwork, and other woodwork in various parts of the building. We hope all this will be most carefully preserved; but we regret to see that the central portion of the double-roof-screen is to be removed. Although we have used the word "restoration," conservation is what we would, in a large majority of cases, make the limit of operations; for, to restoration, as carried on during late years, we owe much positive destruction of most interesting and valuable works. It can never be too often reiterated, that however carefully a restoration may have been conducted, it annihilates one of the most important attributes of the original, however much that original may have become broken or decayed. The restorations at the cathedral at Manchester seem to be on a very extensive scale, as noticed in a former number, and include not only polychromatic decoration, but a fresh arrangement of the pulpit and fittings, rendering the building more in accordance with its new purpose. Chetham's College—a most interesting building, originally built about the time of Henry the Sixth, but which has many later additions—has also been undergoing restoration under the direction of Mr. George Shaw, architect, of Saddleworth. Amongst new works spoken of in Manchester, we hear of considerable alterations in the market in Victoria-street, which is to be covered with a roof, supported by iron columns, at an expense of 700*l*. The ornamental part of the work is said to include pediments, enriched with ornamental accessories in terra-cotta. Recently it has been decided to excavate the ground for the purpose of storage.

THE PRESENT SYSTEM OF COMPETITION-TENDERS.

SIR,—It is to be hoped that your correspondent, "A Surveyor," is not a true expositor of the feelings and opinions either of the building or surveying class. From my own experience, I apprehend that both would repudiate his statements and inferences, though they might acknowledge that there are defects in the present system of competition-contracts which might be remedied with advantage to the employer and employed; but that it is a system which is "a curse to the country," and which requires "the interposition of the legislature;" that "it is a drawback to everything that is just and honourable," and "pernicious to trade;" are assertions which the facts mentioned by "A Surveyor" will not warrant, nor which the large body of the architectural, professional, or building interest in general, will maintain.

A caustic writer might be tempted to make some severe remarks on the standard by which "A Surveyor" measures the consciences of the parties in his anecdotes about young "wise-acre" architects. For my own part, I see nothing in either case but a strict and conscientious discharge of the architect's duty to his employer. But I had rather occupy your columns with a few remarks on the system of competition and mode of obtaining contracts now adopted, premising that I differ *in toto* from "A Surveyor" in considering competition of itself a ban. I regard it, on the contrary, not only in the building business but in all trades and professions, as fairly and honourably conducted, as a means of rising in the world, and a source of honour. To builders it is of the greatest advantage: it gives beginners a standing, it prevents old firms carrying away all business, and, by its result, creates work.

Builders would have lost many a job if the employer had not felt a security under the system of competition contracts. But it is useless to complain with a maudlin sentimentality of the system; it is now too strongly engrained in our business-habits to be given up, and it has been found to afford the greatest facility in arranging works, great despatch in execution, and great simplicity and rapidity in closing accounts.

In days of yore, when works and jobs were scarce—when wealth and the appreciation of art were limited to patrons—when works were entrusted to builders who acted as surveyors and architects, or were done mutually by tradesmen under the emphatic term of "blood-work,"—when surveyors met at ten, dined at one o'clock, and saw double afterwards—the system of measuring flourished, and was perhaps adapted to the times; but those days are past: this machinery for the valuation of works was found inefficient when, about twenty-five years ago, the improvements of the metropolis and the extension of architectural knowledge, called the building interest into incessant activity. Contracts by prices were tried, and also by tenders in gross, each party making his own estimate. Both failed; the former, from the want of principle and the uncertainty in the modes of measurement; and the latter, from the enormous expense which it entailed upon the unsuccessful building competitors.

The present system of tender by quantities was then adopted, and I see no reason to mistrust its efficacy, if it is fairly and honourably acted upon by both parties. We are told that no wise man buildeth a house without first setting down and counting the cost thereof; and surely a builder is capable of doing this correctly, and guaranteeing the amount by contract.

But complaints have undoubtedly been made against the system both by architects and builders: it is liable to abuse, and there are defects which require remedy.

Perhaps the most important point connected with it is, that the quantities should be ascertained by surveyors of experience and integrity. This branch has, I fear, been often entrusted to incompetent hands. It is a trust of responsibility, and demands great industry, steady application, minute knowledge of the architectural profession, and high integrity of character. There are doubtless many gentlemen who possess these requisites, but I cannot but regret with your correspondent, that the old class of surveyors of this description is not well replaced by the rising generation. It would be a great benefit to the profession and the building interest at large, if a class of men were to educate and employ themselves solely in this pursuit. The Institute has, I fear, committed an egregious error in excluding this class from a standing in the profession; the mutual intercourse which would otherwise have ensued would have benefited both parties, and have given this class a more enlarged standard for estimating the importance of their duties. But I may, perhaps, be met with the objection, that the Institute is an Institute of Architects, and not of architects.

Another defect in the system of taking out quantities is the uncertainty in the principle of measurement adopted for some trades. I would instance joiners' work, but especially masons' work. As regards the latter, the old system is most erroneous, particularly when applied to Gothic work. I have known instances in which a practical mason has asserted, that the quantity of labour estimated upon the quantity of stone given has been impossible. This also is a case in which the Institute might have done good service to the profession, by collecting information from experienced surveyors, and, by a thorough digest of the principles of mensuration, have enforced a system for the general guidance of the building profession.

The discrepancy in the amount of tenders is certainly sometimes astounding, and is as unsatisfactory to the architect as to the contractor; but the builders must here decide for themselves: the value of the work is a point for their sole consideration. That fictitious tenders have been delivered I know, from sad experience, to be true; but I have never met with such a swindling transaction as your correspondent relates, and must believe, from the general high character of builders, that it is an exception to the usual course of business.

The architect, however, has a simple remedy against such combinations, by adopting the Chancellor of the Exchequer's system, and placing on his table his own valuation of the quantities in a sealed cover, and should the lowest tender exceed his amount, the whole should be rejected.

A question has arisen, whether the extras and omissions should be taken on the quantities? I apprehend this should never be allowed, as it alters the nature of a contract. Unintentional errors, even with the greatest precaution, will occur, especially from the short time usually allowed the surveyor; but these errors are as often in favour of the builder as against him. The quantities should be carefully examined by both architect and builder before signing the contract, and any error should then be rectified. At the conclusion of the work, the drawings and specifications should alone be the guide for settling claims for variations.

I fear I have intruded too much on your columns. My object has been to show that the present system is, in principle, correct; and that there is no ground for reverting to the old, uncertain, and extravagant system of measure and value.

T. L.

FEES TO ENGINEERS AND SURVEYORS.

IN the case of "Bushell v. Weiss," an assistant engineer, who had waited for twenty-two days while in London to give evidence before a Parliamentary committee, as to the accuracy of the plans he had been instrumental in preparing for a projected company which 'fell to the ground by reason of imperfection in the plans and sections,'—the plaintiff demanded payment at the rate of 10*l*. 10*s*. a-day for the twenty-two days' attendance, on the ground that the engineer-in-chief had refused to give his evidence, and that he, the assistant, had acted as engineer-in-chief himself, and was entitled to 10*l*. 10*s*. a-day whether, for giving his evidence as to the accuracy of his plans or for merely waiting to do so.

Cronlon Landmann, the engineer of the London and Greenwich Railway, stated in evidence that 10*l*. 10*s*. a-day was most certainly not an unreasonable rate of remuneration to the plaintiff for his services as a civil engineer in 'railway days,' though at other times the remuneration would depend on the state of the market.

The defendant, a cutter, and one of the provisional committee, maintained the demand to be 'most unconscionably excessive,' and the Lord Chief Justice considered that 'nothing could be more improper, ungracious, and deserving of reprobation' than such a demand under such circumstances. The jury found for the plaintiff for 5*l*., being at the rate of 5*l*. 5*s*. a-day for twenty-two days.

The following, we may here add, is an extract from the examination of Captain W. Yolland, R.E., before the Metropolitan Sanitary Commission:—"At what rate have railway engineers and surveyors obtained copies of your plans?—Copies of plans drawn upon the 6-inch scale have been supplied at the rate of 10*s*. per mile.—What have they charged to the companies?—We have memoranda in our office stating that the charges made to companies have varied from 30*l*. to 60*l*. per mile."

THE NECESSITY FOR COMMUNICATION

BETWEEN PASSENGERS AND GUARDS by rail was perhaps more clearly proved than in the recent instance of the burning of the Countess of Zetland's carriage, about four miles from Rugby, while her ladyship and her waiting-maid were seated in it. A gentleman, attracted by the screams of the countess and her attendant, and by the smell of something burning, endeavoured in vain to convey an alarm to the guard or engine-driver. He then opened the door of his carriage and scrambled along the sides of the train to the truck on which her ladyship's carriage was placed, and found her clinging to the wheel in a terrible state of alarm. The lady's-maid had fallen off. On the train arriving at Rugby, an engine was sent along the line to look for her. She had fallen in a state of insensibility with her hands across the rails, and before the engine-driver discovered her, the wheels of the engine cut off her hands.